

Appl. No. : 10/676,458
Filed : September 30, 2003

AMENDMENTS TO THE CLAIMS

1. (Canceled)
2. (Currently amended) The method according to claim 4, wherein the curable resin material comprises an epoxy resin.
3. (Currently amended) The method according to claim 4, wherein the first layer comprises at least one flexibilising agent.
4. (Currently amended) The method according to claim 1 A method of forming a pot for an array of hollow fibre membranes, each fibre membrane comprising an end, the method comprising:
placing the ends of the fibre membranes in a mould;
forming a first layer of a curable resin material in a non-cured state around the ends, wherein the step of forming a first layer of a curable resin material further comprises monitoring a curing process of the first layer to determine an optimal time at which to apply a second layer to the first layer;
applying a second layer of a polyurethane resin material to the first layer prior to full curing of the first layer, wherein the polyurethane resin material is chemically reactive with the curable resin material to form an adhesive bond between the first layer and the second layer, and wherein a fully cured polyurethane resin material is of a higher flexibility than a fully cured curable resin material;
at least partially curing the first layer and the second layer, such that a pot is formed; and
removing the pot from the mould.
5. (Original) The method according to claim 4, wherein the step of monitoring comprises monitoring a temperature change within the first layer to determine a state of the curing process.
6. (Canceled)
7. (Currently amended) The method according to claim 6 A method of forming a pot for an array of hollow fibre membranes, each fibre membrane comprising an end, the method comprising:
placing the ends of the fibre membranes in a mould;

providing a potting sleeve within the mould to receive a first layer and a second layer, wherein the potting sleeve comprises adhesion means, wherein the adhesion means assist in adhesion of at least one of the curable resin material and the polyurethane resin material to the potting sleeve;

forming a first layer of a curable resin material in a non-cured state around the ends;

applying a second layer of a polyurethane resin material to the first layer prior to full curing of the first layer, wherein the polyurethane resin material is chemically reactive with the curable resin material to form an adhesive bond between the first layer and the second layer, and wherein a fully cured polyurethane resin material is of a higher flexibility than a fully cured curable resin material;

at least partially curing the first layer and the second layer, such that a pot is formed; and

removing the pot from the mould.

8. (Currently amended) The method according to claim 6 7, wherein a surface of the potting sleeve in contact with at least one of the curable resin material and the polyurethane resin material is roughened.

9. (Currently amended) The method according to claim 6 7, wherein the potting sleeve comprises at least one protrusion formed on a surface of the potting sleeve in contact with at least one of the curable resin material and the polyurethane resin material.

10. (Currently amended) The method according to claim 6 7, wherein the potting sleeve comprises at least one indentation formed on a surface of the potting sleeve in contact with at least one of the curable resin material and the polyurethane resin material.

11-20. (Canceled)

21. (New) A method of forming a pot for an array of hollow fibre membranes, each fibre membrane comprising an end, the method comprising:

placing the ends of the fibre membranes in a mould;

forming a first layer of a curable resin material in a non-cured state around the ends, wherein the curable resin material comprises epoxy groups;

applying a second layer of a polyurethane resin material comprising amine groups or amide groups to the first layer prior to full curing of the first layer, wherein the amine

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groups or amide groups of the polyurethane resin material chemically react with the epoxy groups of the curable resin material to form an adhesive bond between the first layer and the second layer, and wherein a fully cured polyurethane resin material is of a higher flexibility than a fully cured curable resin material;

at least partially curing the first layer and the second layer, such that a pot is formed; and

removing the pot from the mould.

22. (New) The method according to claim 21, wherein the first layer comprises at least one flexibilising agent.

23. (New) The method according to claim 21, wherein the step of forming a first layer of a curable resin material further comprises monitoring a curing process of the first layer to determine an optimal time at which to apply a second layer to the first layer.

24. (New) The method according to claim 21, further comprising the step of providing a potting sleeve within the mould to receive a first layer and a second layer, wherein the potting sleeve comprises adhesion means, wherein the adhesion means assist in adhesion of at least one of the curable resin material and the polyurethane resin material to the potting sleeve.

25. (New) The method according to claim 21, further comprising the step of providing a potting sleeve within the mould to receive a first layer and a second layer, wherein the potting sleeve comprises at least one protrusion formed on a surface of the potting sleeve in contact with at least one of the curable resin material and the polyurethane resin material.

26. (New) The method according to claim 21, further comprising the step of providing a potting sleeve within the mould to receive a first layer and a second layer, wherein the potting sleeve comprises at least one indentation formed on a surface of the potting sleeve in contact with at least one of the curable resin material and the polyurethane resin material.